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SOURCE GOST 1012-46

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USSR STANDARD FOR AVIATION GASOLINE GOST 1012-46

(Petroleum Industry BZI)

1. The present standard applies to straight-run aviation gasolines both
in their pure form, and with admixtures of reformed aviation gasoline sta-
bilized by an inhibitor, of high-octane components, and of ethyl fluid.

2. Aviation gasolines must meet the following requirements:

Properties According to Type

Physicochemical Properties	B-95/130 Baku	B-95/115	B-92	B-89	B-70	Test Method
1. Content of ethyl fluid R-9, (GOST 988-44), not over	4ml/kg	4ml/kg	4ml/kg	4ml/kg	0	GOST 63-40
2. Octane num- ber, not less than						
a. Gasoline without ethyl fluid	--	--	--	--	70	GOST 514-46
b. With not more than 4ml ethyl fluid per kg of gas- oline	95	95	92	89	89	

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STATE	<input checked="" type="checkbox"/> NAVY	<input checked="" type="checkbox"/> NSRB	DISTRIBUTION									
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Physicochemical Properties	B-95/130 Baku	B-95/115	B-92	B-89	B-70	Test Method
3. Class of gasoline, according to 3-C method, rich mixture, not less than	130	115	--	--	--	GOST 3338-46
4. Fractional composition						
a. Distillation starts not lower than	40°C	40°C	40°C	40°C	40°C	
b. 10% distills off at not higher than	82°C	82°C	88°C	88°C	88°C	
c. 40% distills off at not lower than	75°C	75°C	75°C	75°C	75°C	GOST 2177-43
d. 50% distills off at not higher than	105°C	105°C	105°C	105°C	105°C	
e. 90% distills off at not higher than	145°C	145°C	145°C	145°C	145°C	
f. 97.3% distills off at not higher than	180°C	180°C	180°C	180°C	180°C	
g. Total residue and loss, not more than	2.5%	2.5%	2.5%	2.5%	2.5%	GOST 2177-43
h. Residue not more than	1.5%	1.5%	1.5%	1.5%	1.5%	

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Physicochemical Properties	B-95/130 Baku	B-95/115	B-92	B-89	B-70	Test Method
5. Reid vapor pressure (mmHg), not more than	330	360	360	360	360	GOST 1756-42
6. Acidity (mgKOH/100 ml), not more than	1.2	1.2	1.2	1.2	.2	OCT NKTP 7872/ 2292, M.I. 25v-36
7. Freezing point, not higher than	-60°C	-60°C	-60°C	-60°C	-60°C	OST 7272-39, M.I. 7 ya
8. Iodine No (gI/100g), not more than	10	10	15	15	15	GOST 2070-43
9. Gum content (mg/100 ml) not more than	2	2	2	2	2	GOST 1567-46
10. S content not more than	0.05%	0.05%	0.05%	0.05%	0.05%	GOST 1771-42
11. Test on copper plate	Passes test					OST NKTP 7872/ 2292, M.I. 23z-37
12. Content of water-soluble acids and alkalies	None					OST NKTP 7872/ 2292, M.I. 25e-37
13. Content of mechanical impurities, including water	None					The gasoline, poured into a glass cylin- der 40-55 mm in diameter, must not con- tain in sus- pension or precipitated on the bottom of the cylinder any impurities, including wa- ter

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Physicochemical Properties	B-95/130 Baku	B-95/115	B-92	B-89	B-70	Test Method
14. Trans- parency	Clear					
15. Color	In nonethylated form, colorless			--	Color- less	Color of gas- oline is de- termined by in- spection. In disputable cases, color of gasoline is determined by means of a Saybolt chromometer; the gasoline is considered colorless if the indicator on the Saybolt appa- ratus is not lower (darker) than 18 units

- NOTE:
- i. It is permissible to add to gasoline not more than 20% benzene, toluene, and pyrobenzol.
 - ii. In case of prolonged storage (longer than 6 months), aviation gasoline is stored without admixture of reformed aviation gasoline.
 - iii. For B-89 and B-70 gasolines containing reformed aviation gasoline, iodine numbers over 25 are not acceptable.
 - iv. Determination of iodine number and gum content is carried out before ethylation of the gasoline.
 - v. In the case of nonethylated aviation B-95/130, B-95/115, and B-92 gasolines the rating nonethylated is indicated and, in parentheses, the previous grade, namely:

B-95/130, Baku, nonethylated	(B-786)
B-95/115, nonethylated	(B-78)
B-92, nonethylated	(B-74)
 - vi. For B-89 and B-70 gasolines manufactured from Far East petroleum, the temperature at which 50 percent distills off has been fixed at not higher than 115°C.
 - vii. For B-70 gasoline manufactured from Krasnodar petroleum, an octane number of not less than 69 has been established.
3. The packing, labeling, storage, transport, and delivery of aviation gasoline are conducted in accordance with GOST 1510-45.

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4. During storage, transport, and handling of aviation gasoline, sanitation (health, safety) regulations and instructions approved by the All-Union State Sanitary Inspection must be observed.

5. Selection of samples of aviation gasolines is carried out according to GOST 2517-44. Up to 2 liters of each kind of gasoline are kept for a control sample.

Proposed by ATK VVS USSR and Ministry of Aviation Industry USSR.

Approved by All-Union Committee on Standards 23 November 1946.

Effective 1 January 1947.

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